

[Document Name] Scope of Claims

[Claim 1]

An LSI test socket for BGA, comprising:

a printed board containing at least one or more decoupling capacitors in which a first power plate connected to an inner surface of a first through hole and a second power plate connected to an inner surface of a second through hole are laminated through a separator;

a pogo-pin supporting casing portion on which said printed board is overlapped into a single piece, and in which at least one or more pairs of first and second casing holes are each opened at positions corresponding to said first and second through holes; and

at least one or more pairs of first and second pogo-pins inserted into penetrating holes in which hole positions of said first and second through holes drilled in said printed board, and said first and second casing holes are allowed to be matched,

wherein one end of the printed board faces a BGA package, said pogo-pin supporting casing portion being disposed at the other end thereof at the time of testing LSI incorporated in the BGA package.

[Claim 2]

The LSI test socket for BGA according to claim 1,

wherein power supply layers each corresponding to said first and second power plates and one GND layer are formed in said printed board, the decoupling capacitors being formed by the use of an electrostatic capacity between the power supply layers and the GND layer.

[Claim 3]

The LSI test socket for BGA according to claim 1,  
wherein in said printed board, plating layers are formed in inner surfaces of through holes into which power supply pogo-pins and a GND pogo-pin are inserted, except for a through hole into which a signal pogo-pin is inserted.

[Claim 4]

The LSI test socket for BGA according to claim 1,  
wherein said pogo-pin supporting casing portion is made of non-conductive material, and plating layers are not formed in inner surfaces of the casing holes.

[Claim 5]

The LSI test socket for BGA according to claims 2 or 3,  
wherein said power supply layers are electrically connected to the plating layers in the inner surfaces of the through holes into which the power supply pogo-pins are inserted, said GND layer being electrically connected to the plating layer in the inner surface of the through hole into which the GND pogo-pin is inserted.

[Claim 6]

An LSI test socket for BGA, comprising:

a printed board containing decoupling capacitors in which a first power plate connected to an inner surface of a first through hole and a second power plate connected to an inner surface of a second through hole are laminated through a separator;

a pogo-pin supporting casing portion on which the printed board is overlapped into a single piece, and in which first and second

casing holes are each opened at positions corresponding to said first and second through holes; and

pogo-pins inserted into penetrating holes in which hole positions of said first and second through holes drilled in said printed board, and said first and second casing holes are allowed to be matched,

wherein one end of said pogo-pin supporting casing portion faces a BGA package, said printed board being disposed at the other end thereof at the time of testing LSI incorporated in the BGA package.

[Claim 7]

The LSI test socket for BGA according to claim 6,

wherein power supply layers each corresponding to said first and second power plates and one GND layer are formed in said printed board, the decoupling capacitors being formed by the use of an electrostatic capacity between the power supply layers and the GND layer.

[Claim 8]

The LSI test socket for BGA according to claim 6,

wherein in said printed board, plating layers are formed in inner surfaces of all through holes into which a signal pogo-pin, power supply pogo-pins, and a GND pogo-pin are inserted.

[Claim 9]

The LSI test socket for BGA according to claim 6,

wherein said pogo-pin supporting casing portion is made of non-conductive material, and plating layers are not formed in inner

surfaces of the casing holes.

[Claim 10]

The LSI test socket for BGA according to claims 7 or 8,  
wherein said power supply layers are electrically connected to the plating layers in the inner surfaces of the through holes into which the power supply pogo-pins are inserted, and said GND layer is electrically connected to the plating layer in the inner surface of the through hole into which the GND pogo-pin is inserted, while the plating layer in the inner surface of the through hole into which the signal pogo-pin is inserted is not electrically connected to the power supply layers and the GND layer.

[Claim 11]

The LSI test socket for BGA according to claim 8,  
wherein said pogo-pins are fixed by inserting the bottom of the pogo-pins into each corresponding through hole of the printed board and soldering through the plating layers.